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**Comments on IMLS Hearing “Libraries and Broadband: Urgency and Impact”**  
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Raising the Floor is grateful for the opportunity to address IMLS Director Susan H. Hildreth and The National Museum and Library Services Board (NMLSB) in our comments on your April 17, 2014 hearing entitled “Libraries and Broadband: Urgency and Impact”.

The mission of Raising the Floor (<http://raisingthefloor.org>) is “to make the web and mobile technologies accessible to everyone with disability, literacy, and aging-related barriers, regardless of their economic status.” We are an international not-for-profit organization headquartered in Geneva, Switzerland, with numerous national affiliates, including Raising the Floor – US.

We have a special interest in libraries as the first and last point of connection with communities and individuals seeking information, and access to information technologies. The work we do on increasing the level of technological participation by all assumes the active participation of libraries, especially public libraries, and it is in that spirit that we submit these comments.

1. People with disabilities are under-represented among adopters and users of the Internet and other modern technologies necessary for full social participation.

Even as technology permeates more and more essential human functions such as education and employment, many people with disabilities remain unintentionally but structurally disconnected from it. When 85% of companies only accept online job applications, and the unemployment rate of working age disabled people is almost three times as high as non-disabled people<sup>1</sup>, exclusion from the online world means exclusion from work. Estimates and explanations differ, but people with disabilities may be almost 30% less likely to be online<sup>2</sup>, and probably make up a large segment of those who say they have difficulty learning or using a computer. That is to say, many of these potential users are being excluded by inaccessible design, caused by a lack of attention to their needs and preferences.

As general technological adoption increases, natural market forces are converting non-users into users, especially those who can be reached by falling prices and subsidies such as those available under programs like Connect2Compete. We may be left with 2 categories of ‘hard cases’: those who do not respond to relevance or price arguments and are relatively unreachable, and those who are **technologically pessimistic**. The latter accept the transformative potential of technology, and could even afford it, but do not believe that they themselves can succeed in using it, often due to previous negative experiences. They also lack

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<sup>1</sup> <http://www.dol.gov/odep/topics/DisabilityEmploymentStatistics.htm>, retrieved April 18, 2014.

<sup>2</sup> “Americans living with disability and their technology profile”  
<http://pewinternet.org/Reports/2011/Disability.aspx> Pew Research Center’s Internet & American Life Project, 2011.

proper equipment that accommodates their needs, and the skills to use it. This describes a large segment of the population with disabilities.

2. Most libraries lack enough specialized equipment, materials, and staff training to feel confident about their ability to serve patrons with disabilities, including within their digital literacy programs.

Expecting an average public library to be able to close this technological gap is unrealistic. Staff training and equipment are intended to serve the large majority of their patrons, not small minorities with special requirements of any type, who may (or may not) appear at any moment. Librarians are past masters of flexibility with a strong commitment to public service, but they cannot invest their already overstretched resources in complicated accommodations that may not generate enough usage to justify the expenditure. Whether true or not, many administrators perceive assistive technologies as expensive in both money and staff time, and alternative pathways to serving patrons with disabilities are not evident.

In general, digital literacy programs and materials are not designed with the needs of people with disabilities in mind, and trainers are usually not aware of or confident in serving learners with disabilities. This, combined with a lack of specific outreach to disability organizations, often results in underserving this population.

3. People with disabilities underuse library programs of all types because they correspondingly lack confidence that their needs and preferences will be met there.

On the other side of the equation, many people with disabilities do not use their public library because they do not believe that it can serve them. A senior with low vision for whom large print books are no longer working probably should ask about more powerful alternatives, but few are likely to do so. If that senior is also a technological 'laggard', it is also unlikely that he/she will ask about a digital literacy program or alternative access to text. In many cases individuals may have given up on active information seeking and become passive consumers of media that are not impeded by their functional limitations.

Note in points #2 and #3 that this low-supply-low-demand dynamic leads to an overall lack of attention to accessibility (aside from architectural) in many public libraries, and to some extent in the library policy arena.

4. The Global Public Inclusive Infrastructure is a system that can address both sides of this gap. Raising the Floor's keystone project is the Global Public Inclusive Infrastructure (GPII; details available at <http://gpii.net>). GPII will allow people with disabilities to create personal interface preferences—a list of features that expresses how they want technology devices to work for them—and store those in the cloud. For example, a person whose vision loss leads to the need for magnified, high contrast content can specify exactly how large text must be, and what his/her preferred text and background colors are. Then whenever he/she encounters an information or communication device (e.g., ATM, transit ticket machine, or library computer), those preferences are relayed from the cloud and the device's interface is modified to suit the user. A single exploratory session establishes the user's preferences, which then addresses the

multiplicity of devices that person may want to use. This simple and automatic personalization is intended to attract the many millions of potential users who are not yet engaged in the online world.

From the other side of the service equation, GPII will allow libraries to serve patrons with disabilities without special equipment or training. The user will arrive at the library and activate his/her preferences via any suitable method, such as thumb drive, wireless authentication device, or QR code. When the user finishes, the library computer will revert to its default interface.

We are almost 2 years into GPII's 5 year development program, and while there are obviously many technical details yet to be worked out, we are confident that GPII will provide both users and use environments such as libraries with a simple and efficient method of addressing needs that are currently going unmet.

5. A library-focused GPII project is underway that will allow participating libraries to contribute to GPII's design and experience its operational benefits.

Beginning this year we are developing an early pilot project—a GPII system aimed at libraries. It is being designed with input from library professionals so that it works within their technical and administrative environments, as well as for patrons with disabilities. For example, we are paying attention to network security requirements that often limit the ability of users and even library staff to install and run software on their own.

We understand that, just as with patrons, there is a wide range of library administrative and strategic preferences. Key to the library pilot system will be that libraries will be able to choose their level of engagement with GPII. They may decide to only permit 'self-service' by patrons who are already enrolled in GPII; they may keep on hand certain 'default' GPII profiles with features typical of certain disability categories, they may participate in a GPII-focused library expert network, or they may go as far as to be the home to GPII enrollment activities and host GPII exploratory sessions, inviting in local accessibility resources and reaching out to local disability organizations.

We look forward to continuing the dialogue we have already begun with the library community through our attendance at ALA events, participation in online library accessibility groups, and targeted webinars and surveys.

6. Personalization serves other users as well, in ways that may interest libraries.

GPII is not limited to services and features for people with disabilities. It is being built to achieve compatibility with all forms of personalization. For example, GPII could support intelligent notification of patrons when new content of interest is available. It might extend the concept of book clubs, with both local and remote participation and social networking. For students, it might be used to mediate between different learning environments, such as school and home, providing educational materials appropriate to each and integrated with learning management tools. GPII seeks to blur the artificial distinction between needs and preferences by giving

patrons a wider range of interface choices regardless of their 'clinical condition', and focusing on optimizing their ability to perform in any environment of use.

We would welcome an opportunity to communicate with IMLS leaders and staff about the opportunities GPII offers the library community to re-envision library services and provide better service to patrons with disabilities and the entire community of users.

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